

A precise fiber array is formed using a chuck to tightly hold as an array with hexagonal packing a group of precision ferrules into ones of which is inserted and bonded a fiber end. The bonding is typically performed by gluing the fiber into the ferrule. The ferrules may also be bonded to each other. Once the ferrules are bonded together, the chuck may be removed. The terminating end of the fibers may be polished. Alternatively, cleaved terminating fiber ends may be employed, with the various terminating ends being coordinated, e.g., by an optical flat. The ferrules may have a tip and a conical entrance. The chuck may hold the ferrules in a straight orientation. The fiber terminating faces of all of the ferrules may be substantially coplanar. The ferrules may be arranged in a hexagonal configuration.